

NOTES

- Median lane closures shall conform to the details for outside lane closures except that C20 (LT) signs shall be used.
- Not less than one person shall be assigned to full time maintenance of traffic control devices on all night lane closures or day-time closures exceeding 1.6 km in length, including taper.
- Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 2.4 m and the outside lanes are to be closed.
- All advance warning sign installations shall be equipped with flags for daytime closures. Flashing beacons shall be placed at the locations indicated during night lane closure.
- A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the C18 (or C23) sign would follow within 600 m of a stationary C18, C23 or C11 "STATE HIGHWAY CONSTRUCTION NEXT MILES", use a C20 sign for the first advance warning sign.
- Place a C30 sign every 600 m throughout length of lane closure.
- One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
- A minimum 450 m of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
- All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones may be used in lieu of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 600 m as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 150 m section of the lane closure shown along lanelines shall be used between the 300 m lane closure tapers when two or more adjacent traffic lanes are to be closed.
- Unless otherwise specified in the special provisions, the G84 and W59 signs shall be used as shown.
- Where specified in the special provisions, a W11 "LANE REDUCTION SYMBOL" sign is to be used in place of the C20 "RIGHT LANE CLOSED AHEAD" sign.
- The W11 "LANE REDUCTION SYMBOL" sign shown at this location is to be used where the W11 sign is used as advance warning as described in Note 15.

SIGN PANEL SIZE (Min)

A	1219 mm x 1219 mm
B	914 mm x 914 mm
C	762 mm x 762 mm

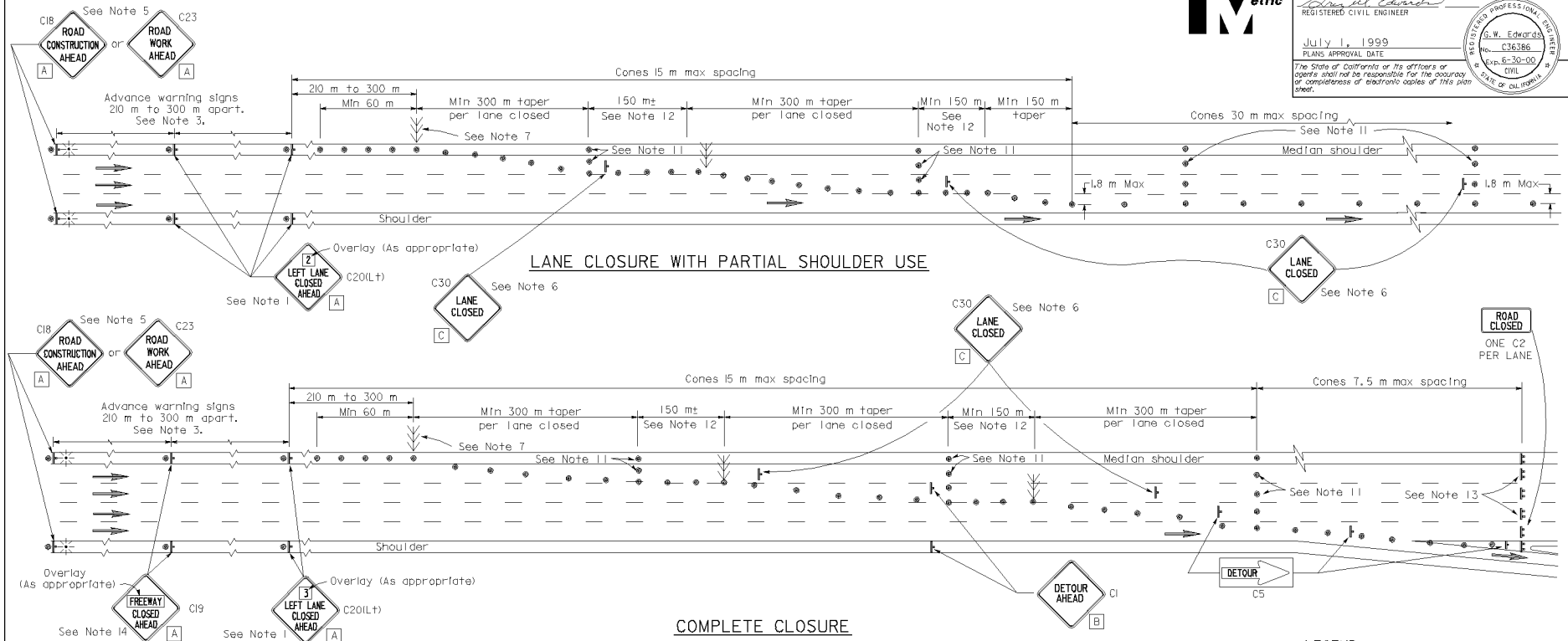
LEGEND

- Traffic Cone
- Traffic Cone (optional taper)
- ↑ Portable Sign
- ← Flashing Arrow Sign
- Direction of Travel
- ✱ Portable Flashing Beacon

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE



NOTES

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details for inside lane closure except that C20(RT) signs shall be used.
- Not less than one person shall be assigned to full time maintenance of traffic control devices on all complete closures, on all night lane closures, and daytime closures exceeding 1.6 km in length, including taper.
- All advance warning sign installations shall be equipped with flags for daytime closure. Flashing beacons shall be placed at the locations indicated during night lane closures.
- A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the C18 (or C23) sign would follow within 600 m of a stationary C18, C23 or C11 "STATE HIGHWAY CONSTRUCTION NEXT MILES" use a C20 sign for the first advance warning sign.
- Place a C30 sign every 600 m throughout length of lane closure.

- One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
- A minimum 450 m of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 600 m as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 150 m section of the lane closure shown along lanelines shall be used between the 300 m lane closure tapers when two or more adjacent traffic lanes are to be closed.
- A minimum of Two Type II barricades shall be placed across each closed lane and shoulder at the location shown and every 600 m within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Where specified in the special provisions, a C1 "DETOUR AHEAD" sign is to be used in place of the C19 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

- | | |
|---|-------------------|
| A | 1219 mm x 1219 mm |
| B | 914 mm x 914 mm |
| C | 762 mm x 762 mm |

LEGEND

- | | |
|--|--------------------------|
| | Traffic Cone |
| | Portable Sign |
| | Flashing Arrow Sign |
| | Direction of Travel |
| | Portable Flashing Beacon |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE AND COMPLETE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

T10A

TYPICAL LANE CLOSURE

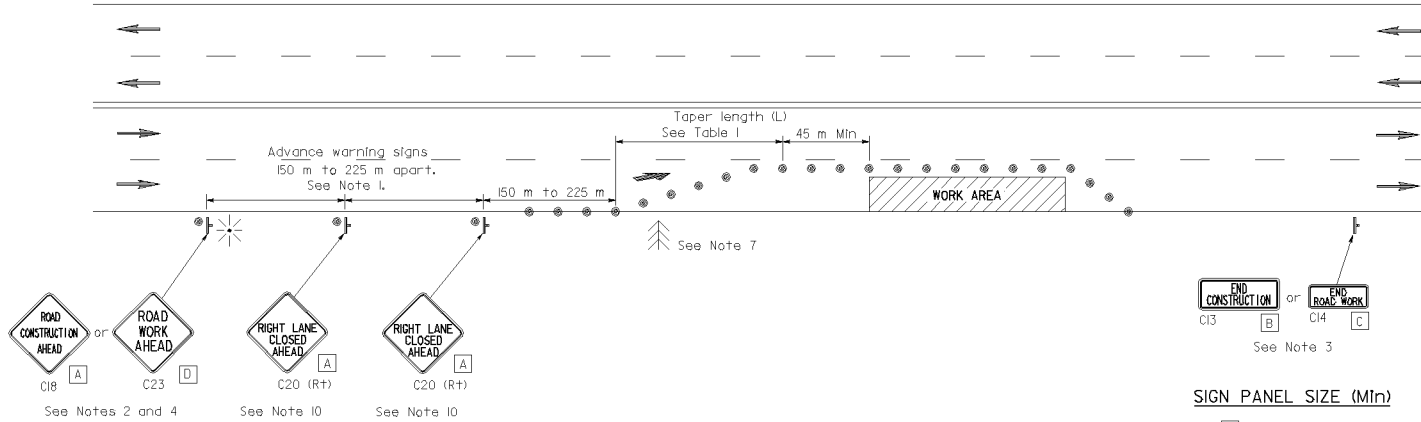
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

G. W. Edwards
REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
G. W. Edwards
C36386
Exp. 6-30-00
CIVIL
STATE OF CALIFORNIA



SIGN PANEL SIZE (Min)

A	914 mm x 914 mm
B	1219 mm x 457 mm
C	914 mm x 457 mm
D	762 mm x 762 mm

LEGEND

●	Traffic Cone
↑	Portable Sign
←	Direction of Travel
⚡	Flashing Arrow Sign
⚡	Portable Flashing Beacon

NOTES

- Where approach speeds are low, signs may be placed at 90 m spacing, and in urban areas, closer.
- All advance warning sign installations shall be equipped with flags for daytime closures. Flashing Beacons shall be placed at the locations indicated for nighttime closures.
- A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the C18 (or C23) sign would follow within 600 m of a stationary C18, C23, or C11 "STATE HIGHWAY CONSTRUCTION NEXT _____ MILES", use a C20 sign for the first advance warning sign.
- All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime closures only.
- Flashing arrow sign shall be either Type I or Type II.
- The maximum spacing between cones in a taper shall be approximately as shown in Table I and 15 m maximum spacing on tangent.
- For approach speeds over 80 km/h, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- Where specified in the special provisions, a W11 "LANE REDUCTION SYMBOL" sign is to be used in place of the C20 "RIGHT LANE CLOSED AHEAD" sign.

TABLE I

Approach Speed (km/h)	* Taper Length (L) (m)	* Number of Cones for Taper	Spacing of Cones Along Taper (m) ±
0-40	38	6	7.5
40-65	98	9	12
65-80	183	13	15
Over 80	See Note 9		

* Based on 3.6 m wide lane. This column is also appropriate for lane widths less than 3.6 m.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR LANE CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS**

NO SCALE

LEGEND

- Traffic Cone
- ┆ Portable Sign
- ◀◀◀ Flashing Arrow Sign
- Direction of Travel
- ✱ Portable Flashing Beacon

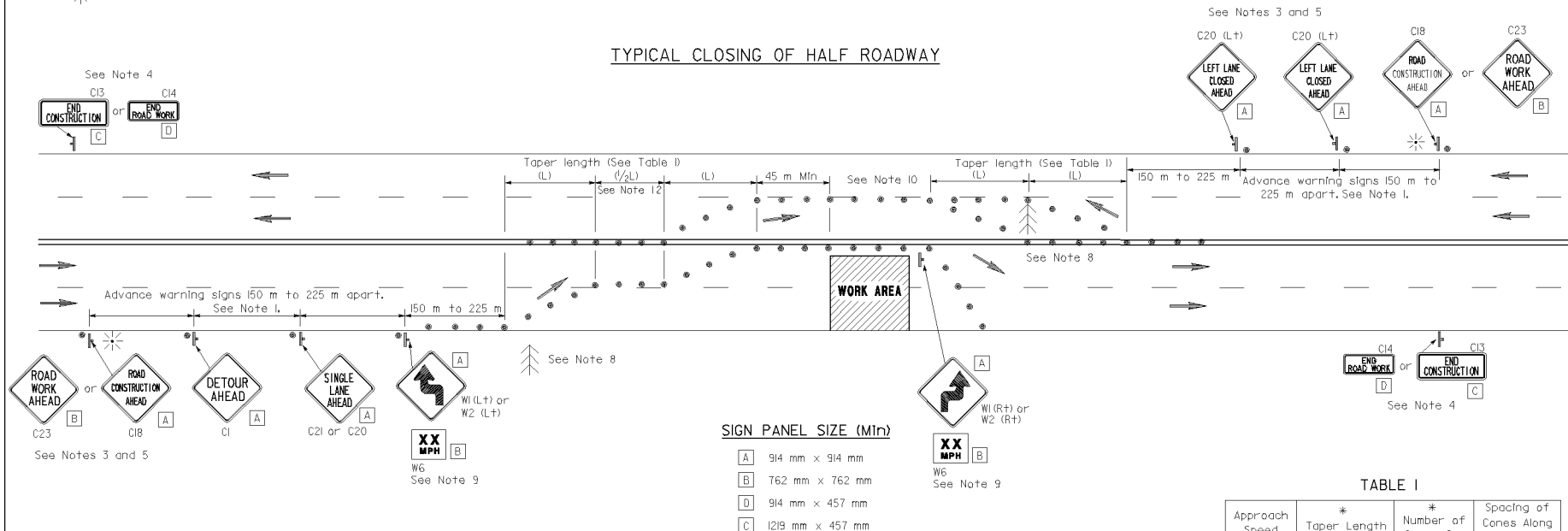


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

John M. Edwards
 REGISTERED CIVIL ENGINEER
 July 1, 1999
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

S. W. Edwards
 C36386
 Exp. 6-30-00
 CIVIL
 STATE OF CALIFORNIA

TYPICAL CLOSING OF HALF ROADWAY



NOTES

- Where Approach speeds are low, signs may be placed at 90 m spacing and, in urban areas, closer.
- Not less than one person shall be assigned to full time maintenance of traffic control devices on all night lane closures.
- All advance warning sign installations shall be equipped with flags for daytime closures. Flashing beacons shall be placed at the locations indicated during night lane closures.
- A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the C18 (or C23) sign would follow within 600 m of a stationary C18, C23, C11 "STATE HIGHWAY CONSTRUCTION NEXT MILES", use a C20 sign for the first advance warning sign.
- All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime closures only.
- Flashing arrow signs shall be either Type I or Type II.
- Advisory speed will be determined by the Engineer. The W6 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
- The maximum spacing between cones within a taper shall be approximately as shown in Table I and the maximum spacing on tangent shall be 15 m.
- For approach speeds over 80 km/h, use the "Traffic Control System For Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- Unless otherwise specified in the special provisions, the (1/2)L shown between the two (L) lane closure tapers shall be used.

TABLE I

Approach Speed (km/h)	* Taper Length (L) (m)	* Number of Cones for Taper	Spacing of Cones Along Taper (m) ±
0-40	38	6	7.5
40-65	98	9	12
65-80	183	13	15
Over 80	See Note 11		

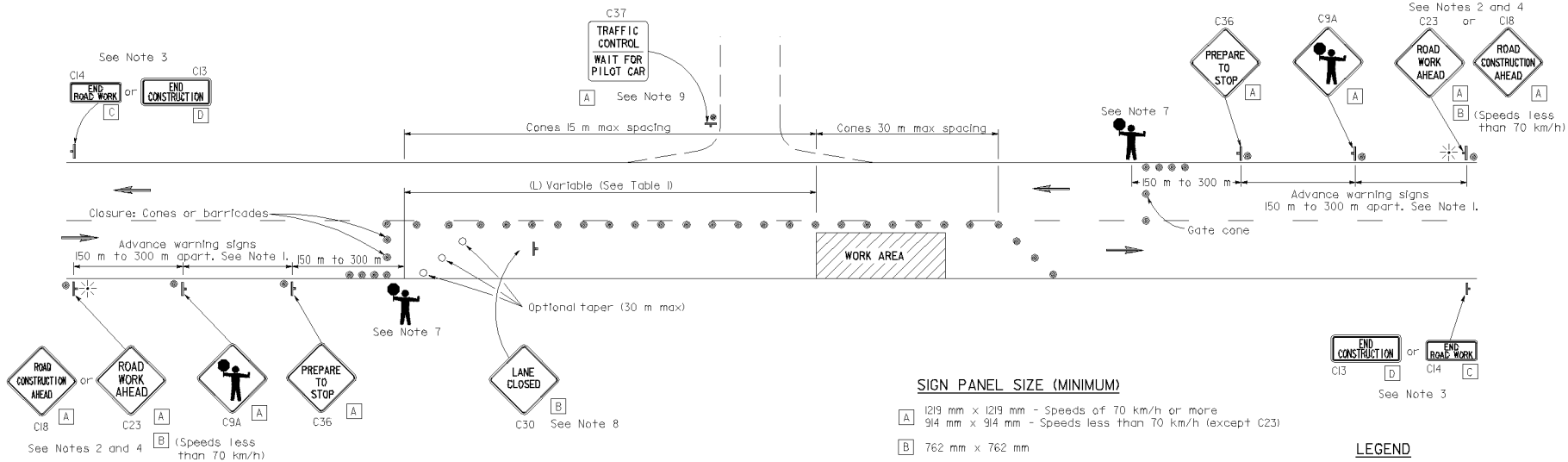
* Based on 3.6 m wide lane. This column is also appropriate for lane widths less than 3.6 m.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (MINIMUM)

- A 1219 mm x 1219 mm - Speeds of 70 km/h or more
914 mm x 914 mm - Speeds less than 70 km/h (except C23)
- B 762 mm x 762 mm
- C 914 mm x 457 mm
- D 1219 mm x 457 mm

TABLE I

Approach Speed (km/h)	* (L) (m)±
0-50	60
50-70	90
over 70	150

* Increase by 20 percent on sustained downgrades steeper than 3 percent and longer than 1.6 km.

LEGEND

- Traffic Cone
- Traffic Cone (optional taper)
- ↑ Portable Sign
- ← Direction of Travel
- ⚡ Portable Flashing Beacon
- ⚡ Flagger

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

NOTES

- Where approach speeds are low, signs may be placed at 90 m spacing, and in urban areas, closer.
- All advance warning sign installations shall be equipped with flags for daytime closures. Flashing beacons shall be placed at the locations indicated during night lane closures.
- A C13 "END CONSTRUCTION" or C14 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
- If the C18 (or C23) sign would follow within 600 m of a stationary C18, C23, or C11 "STATE HIGHWAY CONSTRUCTION NEXT MILES", use a C9A sign for the first advance warning sign.
- All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime closures only.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. Nighttime flagger station shall be illuminated as provided in the current edition of the "Manual of Traffic Controls" published by the State of California, Department of Transportation. Place a minimum of four cones at 15 m intervals in advance of flagger station as shown.
- Place C30 "LANE CLOSED" sign at 150 to 300 m intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37 "TRAFFIC CONTROL-WAIT FOR PILOT CAR" sign at all intersections within traffic control area. Signs shall be clean and visible at all times.

TYPICAL RAMP CLOSURES



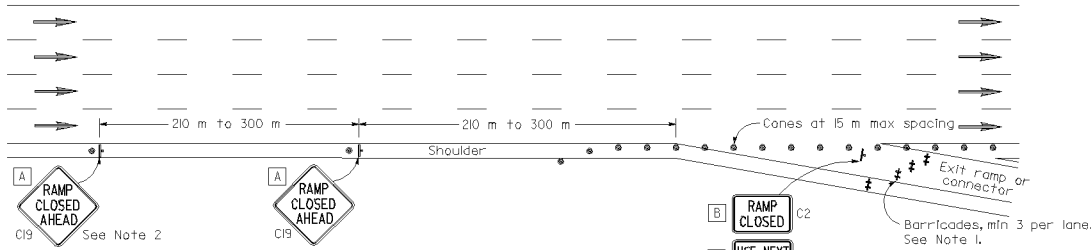
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Glen M. Edmon
REGISTERED CIVIL ENGINEER

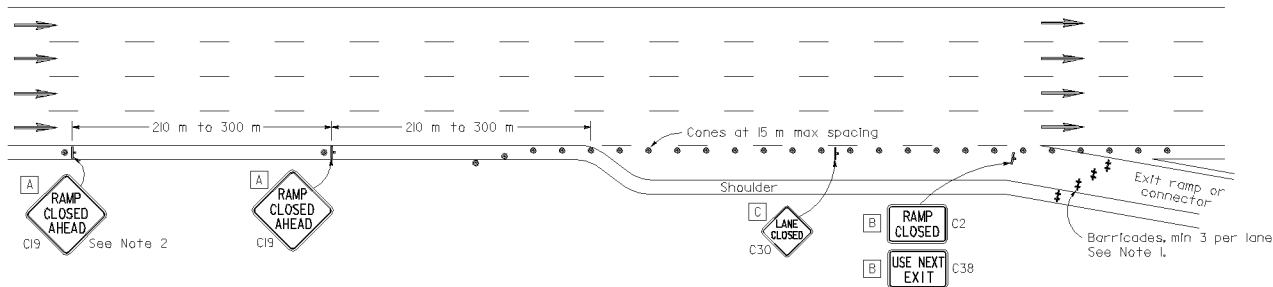
July 1, 1999
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

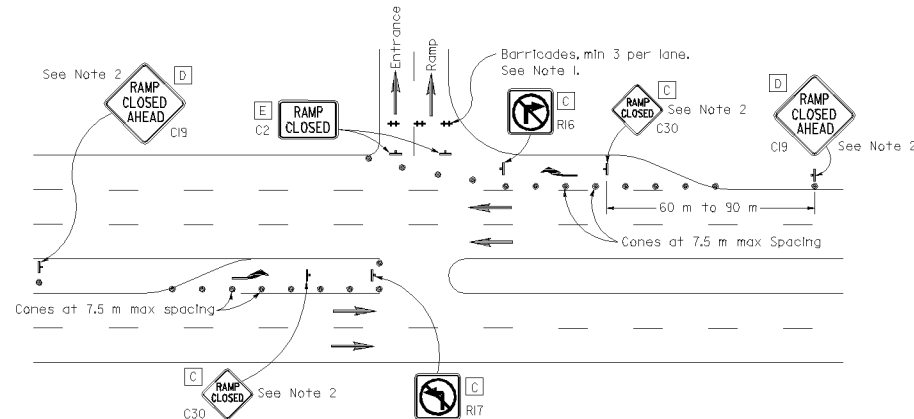
REGISTERED PROFESSIONAL ENGINEER
G. M. Edmon
C36386
Exp. 6-30-00
CIVIL
STATE OF CALIFORNIA



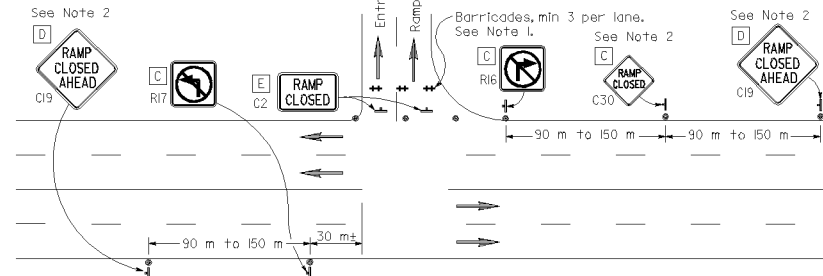
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES

1. Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
2. In lieu of placing the C19 "RAMP CLOSED AHEAD" and C30 "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
3. All advance warning sign installations shall be equipped with flags for daytime closures.
4. All cones used for night lane closures shall be fitted with reflective sleeves as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used in lieu of cones for daytime ramp closures only.
6. During nighttime ramp closures, at least one person shall be assigned full time for maintenance of traffic control devices.

LEGEND

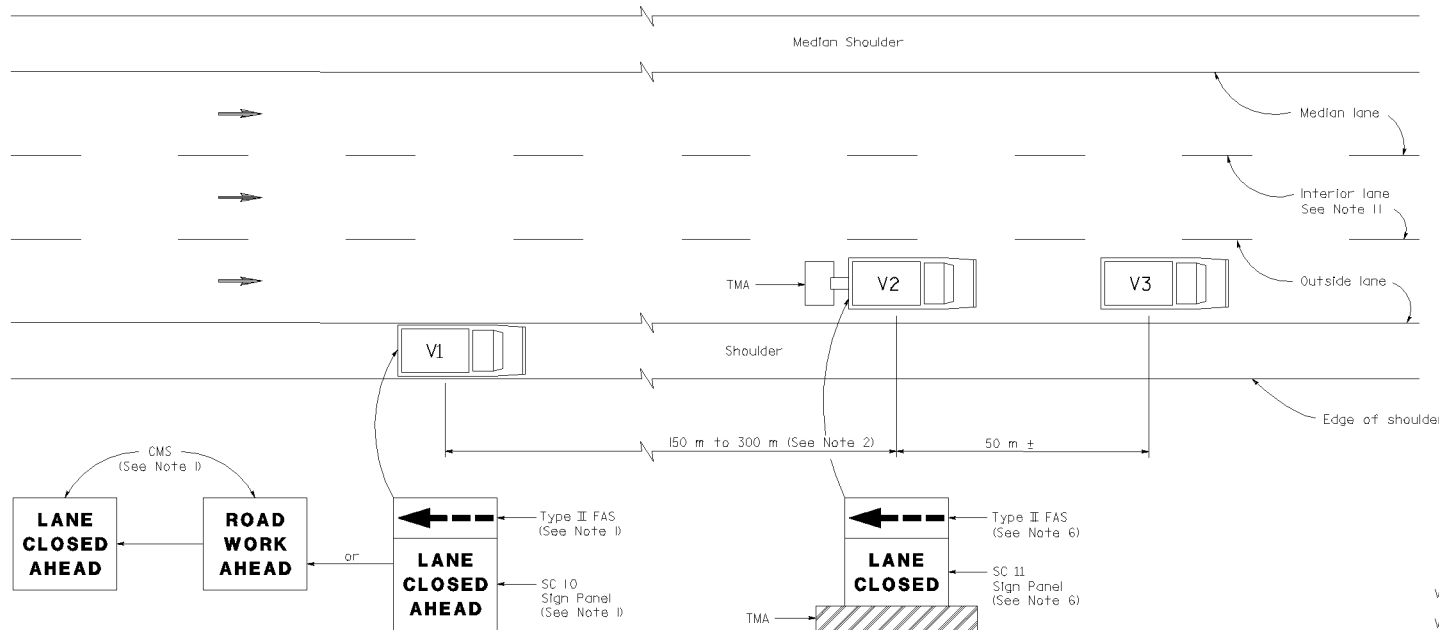
- Traffic Cone
- † Sign
- ‡ Barricades
- Direction of Travel
- ↩ Turn Arrow

SIGN PANEL SIZE (Min)

- A 1219 mm x 1219 mm
- B 1219 mm x 762 mm
- C 762 mm x 762 mm
- D 914 mm x 914 mm
- E 914 mm x 610 mm

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
FOR RAMP CLOSURE**

NO SCALE



MOVING LANE CLOSURE ON MEDIAN OR OUTSIDE LANE OF MULTILANE HIGHWAYS

LEGEND

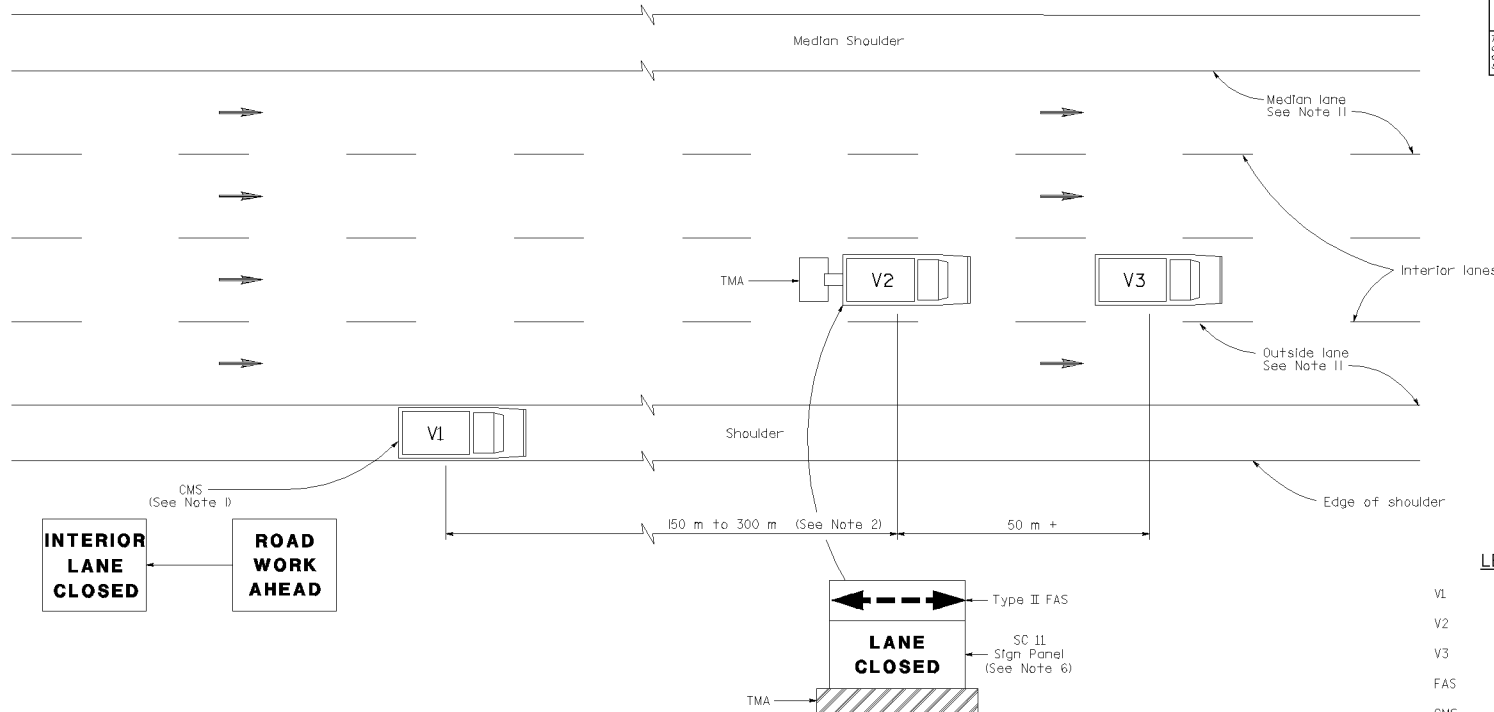
- V1 Sign Vehicle
- V2 Shadow Vehicle
- V3 Work/Application Vehicle
- FAS Flashing Arrow Sign
- CMS Changeable Message Sign
- TMA Truck-Mounted Attenuator
- ➔ Direction of Travel

NOTES

- Either the SC 10 sign panel shown or a changeable message sign shall be mounted on the rear of sign vehicle V1. A Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1 and used with the SC 10 sign panel. A Type II flashing arrow sign will not be required with the changeable message sign provided the flashing arrow sign symbol may be displayed on the changeable message sign board. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "LANE CLOSED AHEAD" message and then the flashing arrow sign symbol. For median lane closure, the flashing arrow sign symbol shall be reversed with the arrowhead on the right.
- If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
- A minimum sight distance of 450 m should be provided in advance of sign vehicle V1.
- Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 450 m.
- Vehicle-mounted sign panels shall be Type III or IV reflective sheeting, black on white or black on orange with 150 mm minimum series D letters per Caltrans sign specifications.
- Gross Vehicle Weight of shadow vehicle V2 shall be a minimum of 9000 kilograms and shall be equipped with a truck-mounted attenuator (TMA). The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be reversed with the arrowhead on the right.
- All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
- All vehicles shall be equipped with flashing or rotating amber lights.
- Where sufficient shoulder width is not available, sign vehicle V1 may encroach into the traffic lane staying as close to the edge of shoulder as practicable. When operating in this mode both V1 and V2 shall be equipped with a truck-mounted attenuator (TMA) and the Gross Vehicle Weight of V1 and V2 shall be a minimum of 9000 kilograms each.
- Where workers would be on foot in the work area, a stationary type lane closure (Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
- For moving lane closure on interior lane of multilane highways, see Standard Plan T16.

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE
ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN



MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

LEGEND

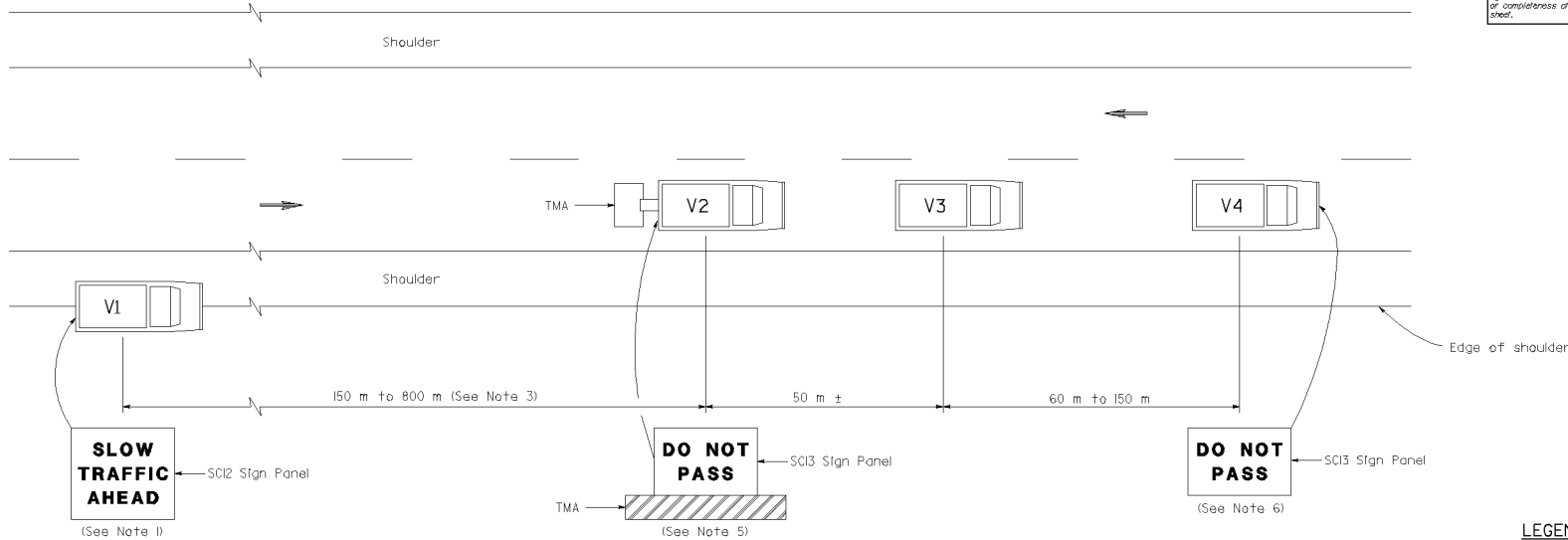
- V1 Sign Vehicle
- V2 Shadow Vehicle
- V3 Work/Application Vehicle
- FAS Flashing Arrow Sign
- CMS Changeable Message Sign
- TMA Truck-Mounted Attenuator
- ➔ Direction of Travel

NOTES

- A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
- If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
- A minimum sight distance of 450 m should be provided in advance of sign vehicle V1.
- Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 450 m.
- Vehicle-mounted sign panels shall be Type III or IV reflective sheeting, black on white or black on orange with 150 mm minimum series D letters per Caltrans sign specifications.
- Gross Vehicle Weight of shadow vehicle V2 shall be a minimum of 9000 kilograms and shall be equipped with a truck-mounted attenuator (TMA). The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be reversed with the arrowhead on the right.
- All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
- All vehicles shall be equipped with flashing or rotating amber lights.
- Where sufficient shoulder width is not available, sign vehicle V1 may encroach into the traffic lane staying as close to the edge of shoulder as practicable. When operating in this mode both V1 and V2 shall be equipped with a truck-mounted attenuator (TMA) and the Gross Vehicle Weight of V1 and V2 shall be a minimum of 9000 kilograms each.
- Where workers would be on foot in the work area, a stationary type lane closure (Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
- For moving lane closure on median or outside lanes of multilane highways, see Standard Plan T15.

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE
ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN



NOTES

1. Either the sign panel shown or a changeable message sign which can display the "SLOW TRAFFIC AHEAD" message shall be mounted on the rear of sign vehicle V1.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall be Type III or IV reflective sheeting, black on white or black on orange with 150 mm minimum series D letters per Caltrans sign specifications.
5. Gross Vehicle Weight of shadow vehicle shall be a minimum of 9000 kilograms and shall be equipped with a truck-mounted attenuator (TMA). The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.

6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic. The message "CAUTION" may be used in place of the "DO NOT PASS" message.
7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 0.6 m or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Standard Plan T13) for this condition.

LEGEND

- | | |
|-----|--------------------------|
| V1 | Sign Vehicle |
| V2 | Shadow Vehicle |
| V3 | Work/Application Vehicle |
| V4 | Sign Vehicle |
| TMA | Truck-Mounted Attenuator |
| ➡ | Direction of Travel |

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON TWO LANE HIGHWAYS

NO SCALE
ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN